

4.0 PRE-EVENT PERCEPTION OF FLOOD RISK

4.1 FAIRFAX COUNTY GOVERNMENTAL STAFF

Fairfax County has been a participating member of FEMA's National Flood Insurance Program (NFIP) since January 7, 1972. Since the adoption of their floodplain ordinance soon after membership into NFIP, Fairfax County has instituted sound floodplain management practices. The county currently requires a minimum vertical elevation of 18 inches above the base flood (100-year) elevation, and a 15-foot horizontal setback from the floodplain is required for new construction. The county also has a more restrictive 0.1-foot allowable rise in base flood elevation for new fill placed anywhere in the floodplain, rather than the 1.0-foot allowable rise criteria set by FEMA. Finally, FEMA guidelines currently direct that floodplains be regulated for watersheds that are one square mile (640 acres) in area or larger; Fairfax County, on the other hand, regulates watershed development and establishes floodplains for watersheds 70 acres in area or larger (FEMA, March 2006).

For floodplain management purposes in Huntington, Fairfax County adopted and uses floodplain maps and elevations that were produced by the USGS in 1976. The study, although dated 1976, consists of surveyed cross-sections and calculations that were completed in 1961, with supplemental survey data in 1965. This 1976 study is being used for Cameron Run in Huntington as the floodplain and is delineated as Zone A on FEMA's FIRM maps, meaning, no detailed flood elevation data is available from FEMA.

Huntington has been a priority area for Fairfax County staff, as it is one of the few areas of significant residential areas in the floodplain within the County. The history of the flood studies conducted in this area is also confirmation that flooding has happened, and is a concern of County officials. Significant changes to not only the watershed but the stretch of Cameron Run near Huntington have occurred since the 1976 USGS study, such as development in the watershed, development within the Cameron Run floodplain, channel sedimentation at rates of 0.2 feet per year (CDM, 1982), and roadway construction. The 1976 USGS study was useful for the time it was completed; however, due to the significant changes noted above, the results in the 1976 USGS study have proven to be invalid for Huntington in present day conditions.

4.2 RESIDENTS OF HUNTINGTON SUBDIVISION

As discussed in Section 3.1, residents of the Huntington community have been dealing with flooding issues for decades. However, based upon a letter from a homeowner to Fairfax County following Tropical Storm Eloise, the majority of complaints from homeowners regarding flooding prior to the June 2006 flood event was from backed up storm and sanitary sewer lines rather than overland, riverine flooding from Cameron Run. Although the majority of homes in Huntington were mapped in FEMA's 100-year floodplain, a number of them were removed from the floodplain limits via the FEMA letter of map amendment (LOMA) process.

If a residential structure is located in a floodplain on FEMA's FIRMs, the homeowner is required to purchase flood insurance through NFIP for any Federally-backed loan. Although FEMA uses

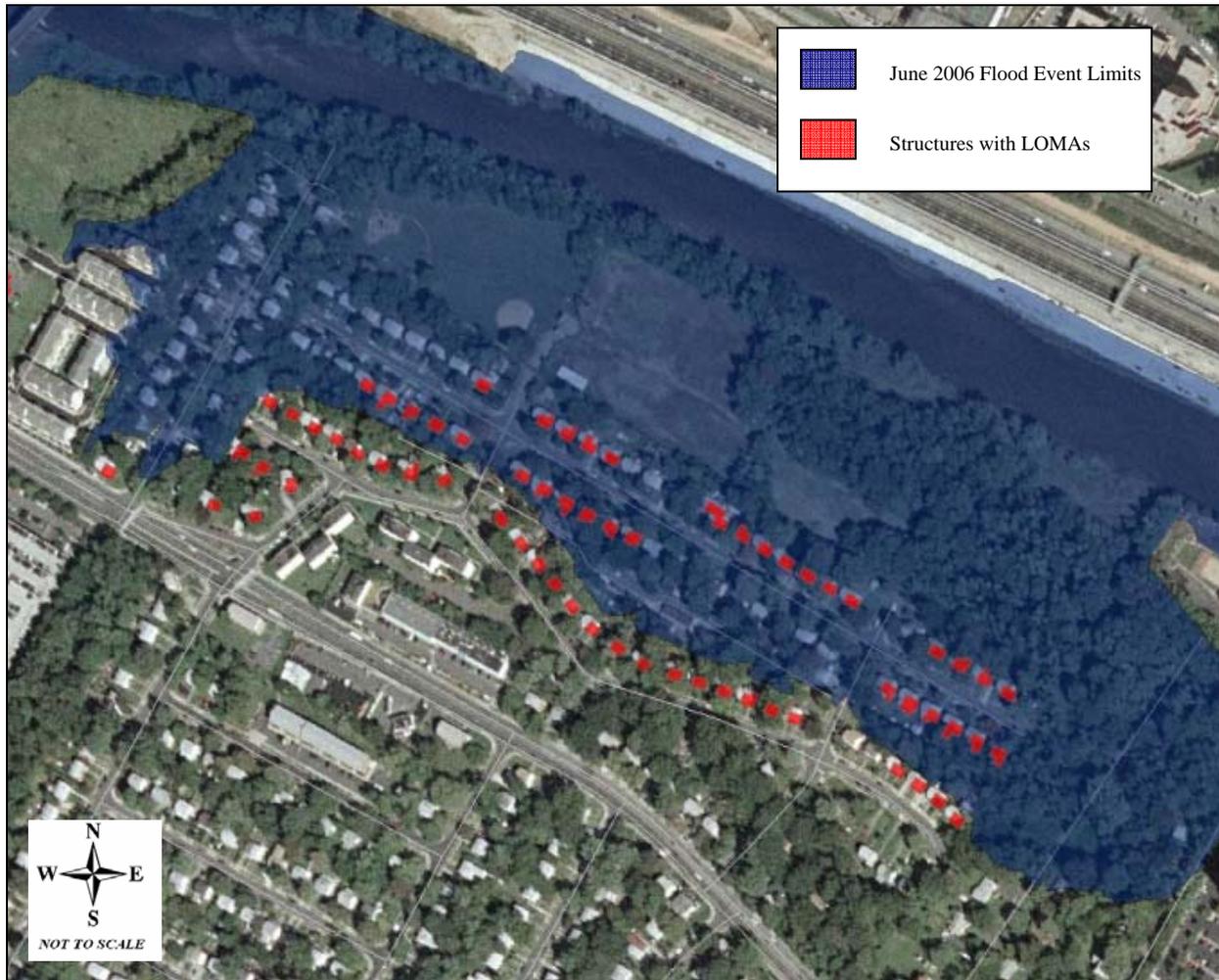
the most accurate flood hazard information available, limitations of scale or topographic definition of the source maps used to prepare the FIRM may cause small areas that are at or above the 100-year flood elevation to be inadvertently shown within the floodplain boundaries. When this happens, structures or parcels of land may be inadvertently included in the 100-year floodplain on the FIRM. For such situations, the property owner or lessee may apply for a LOMA with FEMA. LOMAs are documents issued by FEMA that officially remove a property and/or structures from the 100-year floodplain limits. The issuance of a LOMA determines that the property/structures is not located in the 100-year floodplain, and eliminates the Federal flood insurance purchase requirement as a condition of Federal or Federally-backed financing; however, ultimately the mortgage lender retains the prerogative to require flood insurance as a condition of any loan. In addition, although a structure is removed from the floodplain, flood insurance may still be purchased by the homeowner at reduced costs.

For structures placed on natural ground or constructed prior to the issuance of the first FEMA maps (as are all structures in Huntington), the determination as to whether a structure will be removed from the floodplain is based upon the comparison of the 100-year flood elevation to the lowest adjacent grade (LAG) elevation. The LAG is the lowest ground touching the outside of the structure, including attached decks and garages. If the LAG is at or above the 100-year flood elevation, the structure may be removed from the floodplain. Note that for structures with basements built on natural ground, such as those in Huntington, the basement elevation is not used in the determination.

The procedure used by FEMA for issuing LOMAs involves obtaining a LAG elevation for the structure from a licensed land surveyor or professional engineer, or in some cases, using community-approved topographic mapping. Next, a 100-year flood elevation is determined at the property. If a 100-year flood elevation is published on the FIRM map or FIS, it will be used for the determination. If the floodplain is delineated as Zone A, meaning no detailed study was completed by FEMA, a 100-year flood elevation must be obtained from other sources. Note that the floodplain for Cameron Run at Huntington is delineated as Zone A.

Nearly 130 property owners in Huntington (note that many structures in Huntington are duplexes) applied for and were granted LOMAs between 1997 and 2000 (Figure 4.1). For these LOMAs, FEMA used the 1976 USGS study results as the source of 100-year flood elevations for the structures in Huntington, with flood elevations ranging from 10.9 feet to 11.8 feet (NGVD29). This was determined to be the best available data at the time for Cameron Run.

Figure 4.1. Structures in Huntington with FEMA Letters of Map Amendment (LOMAs)



The application for LOMAs shows that although residents of Huntington knew that the risk of flooding in the community was present, some did not feel the flooding would cause damages to their structures. Note that although officially many applied for LOMAs, it is clear from the interviews with some of the residents that they were not familiar with what a LOMA is. This may be due to (1) the current tenant was not in residence at the time of the LOMA, as the LOMA may have been granted to the previous owner or (2) the LOMA was submitted for them by another entity, such as the County, lending institution, or homeowners association.

Certainly many residents were taken by surprise by the extent of flooding during the June 2006 flood event as many were removed from the floodplain limits and were then flooded significantly. Many residents did not carry flood insurance and thus incurred significant financial hardships as a result of the June 2006 flood event.